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WHAT VUR READERS HINK & DO

CROP CONDITIONS IN JEFFERSON COUNTY, MISSOURL

Editor, Rural World:-We have been having much rain for a month. Friday night, June 4, a cloudburst in the northern part of Jefferson county did much damage to farms and grow ing crops. An area of about one and a half miles square near Kimmswick was severely damaged by the storm. Some buildings were torn down, and deep gullies washed in fields.

Back water from the Mississippi

river has been doing considerable damage in that part of the county. It has been the highest water there since 1903, and the 1903 high water had not been beaten since before the civil war. One farmer is compelled to replant 200 acres of corn.

Wheat is now being harvested. The wheat heads are fairly large and plump, but the straw is very short; some must be mowed and raked.

corn is very uneven growth. The long rainy spell and cool nights have much hindered its growth.

The yield of cherries this year was very good. N. W. Bliss, a farmer near Vineland, had an Oxheart cherry tree that yielded 85 gallons of extra fine fruit. During three years this tree has netted over \$100.

Pastures are good. The new meadows will make a good grade of hay, but old meadows are thin and weedy. Much millet, kafir corn and sorghum is being sown for hay.

We will not have near as large yield of apples this year as we did last year. Practically no Ben Davis. Winesaps are good.-Roy Lee, Mis-

NOTES FROM CEDAR COUNTY, MIS-SOURI-SOME ADVICE.

Editor, Rural World:-We are having wet weather and corn is getting weedy. Wheat will ripen in a few Meadows and pastures are good. Apples promise one-fourth of a crop; peaches, full; cherries, 80 per cent; pears, 75; grapes, 95; raspberries, 80; blackberries, 95.

Being so wet, it will do to set strawberries. Cut off all leaves. The plants soon will grow new leaves and make new plants for next year's crop. The best time to plant strawberries is early spring; the same with blackberries; raspberries a little later when the new plants start. Fruit trees should be planted in late fall or dur ing winter when the ground is not frozen; thus they get the benefit of the winter and spring rains and make a good growth the first year. This is true also for grapes, rhubarb, goose-berries and currants.

Never will I forget my old friend, Sam Miller, who used to give so much useful instruction through the Rural World. I well remember at Springfield. Mo., on the way home from our state horticultural meetings, I de-nounced the use of the tobacco habit. Mr. Miller argued against me. After we left the crowd, he said: "Jacob, After you are right. I talked to hear you reply to my statements. You produced a good argument and gave good advice. I am sorry that I ever began that expensive filthy habit."

I would love to meet the many old friends, but most of them are on that other shore, where we will meet to part no more.-Jacob Faith, Eldorado

Springs, Mo.

SOIL SURVEYS IN MISSOURL.

The United States Department of Agriculture will send representatives of the bureau of soils to make a complete soil survey of Ripley county, Missouri. Similar soil surveys are now under way in Buchanan county and in Newton county where work

parties, it is expected, will take several months to complete the examination and maping of the soils of these

The department requests co-operation on the part of farmers and land owners with the federal soil They should be given facilities to make borings and sample the different soils. They are provided with credentials which will be shown upon request.

As soon as they have completed their investigations, they will make a large man showing the various kinds of soils and their location by means of colors and shading. This map will also show the location of the principal roads, schools, churches, railroads and watercourses.

Accompanying the map will be complete report on the nature of the soils, their suitability for growing various crops, and suggestions for their improvement by fertilizers, cover crops and crop rotations. This report and the map will not be ready for circulation for some months after completion of the survey.

WHO REALLY OWNS MISSOURI LANDS, FARMER OR STATE.

Does a Missouri farmer really own his own land? If he holds a clear ti-

was begun last season. The surveying Spain between 1762 and 1802, again by France from 1802 to 1803, when it was ceded to the United States. fessor Hudson concludes that during these various periods the land was held by the French and Spanish crowns respectively. He traces the history of the Spanish law which pre-vailed in Missouri until 1816 and shows that it included a system land tenure somewhat similar to that which prevailed in England.

The legislature of Missouri abolished the Spanish law in 1816 and substituted the co-called common law of England. By the common law of Eng land, as is shown above, land was held of the crown. Mr. Hudson concludes, therefore, that land in Missouri today is really owned by the state and held by the person who has the title, either because of the system of tenure in the Spanish law or because of the adoption of the common law of England

Mr. Hudson says that the courts and lawyers seem to have assumed, without much discussion of the subject that tenure did not find its way into Missouri law. His conclusion shows that in many respects our law is still based on medieval conceptions. Many states have by constitutional amend ment or legislative enactment abolished this feudal conception of land tenure and Professor Hudson believes

forward the San Francisco exhibits at the close of the American Royal on solid special trains operated on per senger schedules.

Following are the officers of the American Royal for 1915: President E. F. Caldwell, Burlington Junet E. F. Caldwell, Burlington Juneton, Mo.; vice president, Robert H. Has-lett, El Dorado, Kans.; treasurer, H. C. Duncan, Osborn, Mo.; secretary, R. J. Kinzer, Kansas City; assistant secretary, Jno. M. Hazelton, Kansas City City_

FARMERS SHOULD SAVE OWN HAIRY VETCH SEED.

The greater part of the hairy vetch used in the United States, has been imported from Russia and Germany, the annual importations increas. ing from less than 100,000 pound 1906 to over 2,000,000 pounds in 1914. On account of the condition, resulting from the European war only 179,000 pounds of seed were imported between November 1, 1914, and May 15, 1915, and there seems to be little prospect of more coming in before seeding time this fall. This will result in only a small proportion of the normal supply of hairy vetch seed being available for this year's sowing. While the do-mestic production of hairy vetch seed While the do has increased for a number of years it has not increased in proportion to the demand, and the price of the seed has constantly advanced as its use has become more general.

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Farmers who have hairy vetch grow ing are urged by the specialists of the S. Department of Agriculture to save their own supply of seed this year so they may be able to continu the use of this valuable crop. It is not to be expected, however, that prices higher than those of last year will be obtained, as the high price of the seed under normal conditions in recent years has been the chief factor in limiting the use of hary vetch in the past

In harvesting the seed crop it should be cut with a mowing machine when the oldest pods are fully ripe. The wheels of the mower as well as the horses must not be allowed to pass over the cut vetch as otherwise much of the seed will be shattered out. As the pods break open readily when dry, the greatest care should be taken in curing and handling to avoid loss of It can be threshed with an ordinary grain thresher by lowering the concaves sufficiently to avoid cracking Yields of from three to ten the seed. bushels per acre of hairy vetch seed may be expected in addition to the rye or other grain with which it is grown A complete separation of the vetch seed, from rye or wheat, is best made by use of a spiral separating machine known in Europe as a "Schnectentrieur," which is now marufactured for sale in this country. For local seeding, however, a comple separation is not necessary, and the desired proportions of vetch and 170 or wheat can be obtained by the uso of an ordinary fanning mill.

Sow seeds of calliopsis, phlox Draw mondi, annual larkspur or gaillardia in the bulb beds for a summer cover.

IMPORTANT NOTICE TO SUBSCRIBERS

Colman's Rural World Becomes a Semi-Monthly Publication

With first number in July. All paid-up subscriptions will be extended without further cost, so that each subscriber will receive as many numbers of the paper under the new arrangement as he would have received had the Rural World been continued as a weekly. For instance, a subscription that now is not due to expire for three months will be extended an additional three months, so that the reader concerned will not lose in number of issues due him.

And there will be a great gain for everyone. The change to a semi-monthly means improvement in every particular. The one desire of the management has been to produce a rural life periodical that would appeal to each and every reader. As a semi-monthly it will be possible to do this to a greater degree than ever. With the support of its thousands of friends, there is no reason why this paper should not become the best of its kind in America.

The Rural World will be published henceforth on the 5th and the 20th of each month, and the price of subscription will be 50 cents a year or \$1.00 for three years. If our readers have been pleased with the paper in the past they can aid the new departure by renewing their subscriptions and by inducing their neighbors and friends to subscribe. Send your renewal subscription and at least one new subscription without delay, which will be greatly appreciated by us. THE EDITOR.

tle, does the law look upon him as the that if his conclusion is right, the law owner and the farmer as the tenant? in Missouri should be changed by a These questions are treated in a re-cent bulletin upon "Land Tenure and Conveyances in Missouri," by Manley O. Hudson, professor of law at the University of Missouri at Columbia. Professor Hudson gives a history of ownership in Missouri, concluding that no land in Missouri is really owned except by the state, and that a person holding a title to a farm is really a tenant of the state.

Several hundred years ago in England, the king owned all land, ownership of land being a royal preroga-tive. The king parceled out his land to his subjects who held it by what was known as tenure. The tenant sometimes rendered military service to the owner or lord, and sometimes only agricultural service. This system of land holding still prevails in legal theory in England.

A similar situation existed in the American colonies under British do-minion, and it is the accepted view to the American revolution. This system of landholding was not changed by the revolution except that the re-

constitutional amendment which would declare that land can really be owned by the person who has the title.

HOME FOR AMERICAN BOYAL, KANSAS CITY.

Temporarily banished from the stock yards on account of extensive improvements being made there, the American Royal Live Stock Show this year will be held in Convention Hall at Kansas City the week of October 4 to 9. This was decided by the directors at a meeting held at Kansas City on May 31.

Convention Hall has been for sevcal years the home of the Kansas City Horse Show. It is admirably adapted for exhibiting live stock and has a seating capacity of 15,000. Stabling facilities for the exhibits will be provided by erecting substantial wooden structures on a vacant lot just across the street from the main entrance to the hall. It is expected that arrangements will be made to switch cars containing exhibits direct to the

by the revolution except that the respective states were substituted for the British crown as overlords.

In the territory acquired by the Louisiana Purchase this problem of legal theory is not so easily solved. The territory which is now Missouri was owned by France prior to 1762, by



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D. airy vetch ST. LOUIS, MO., JUNE 24, 1915.

The Science of Live Stock Feeding

Why and How Rations Should Be Compounded in Right Proportions for Particular Purposes==-Use Standards as Guides, Not as Inflexible Laws of Animal Feeding.

By D. C. Clark, Kansas.

eating given by a doctor to a young man who wished to avoid indigestion,—"Always quit hungry"—should be made to apply to the farm live stock. Feed is needed for the three purposes of maintain ing life, of working, and of yielding some special products as fat, milk, eggs, wool, etc. Animals being fed to maintain life functions only are said to require half rations. Animals being fattened, being worked hard, or cows producing milk, need fuli rations. Rations having the right proportions of rough feeds and concentrates are desirable, but often a farmer has large quantities of some home-grown feed, such as corn fodder which he wants to use. In such cases a ration containing a little more of the rough feed than the usual feeding standard calls for may be used profitably or the least expensive protein feed obtainable, such as bran, oil meal, cotton cake, gluten feed, etc., may be used to supplement the coarser fodders. Feeding standards are intended to be guides and are not inflexible laws of animal feeding.

Influence of Environment,

Animals are very sensitive to environment and Animals are very sensitive to environment and therefore demand great care in feeding to produce the maximum results. From the wandering tribesman who merely guided his flocks and herds to new pastures when the old feeding grounds failed, the live stock man of today has developed. A thousand or even 100 years ago the present knowledge of feeds and feeding was as conceivable as an aeroplane, a submarine, a gun that will shoot 23 miles, or the wireless telephone. Today German investigators have found the exact amount of food materials needed to make up definite amounts of every part of the animal body and the compositor of feeds. part of the animal body and the compositor of feeds which contain these necessary materials and have tabulated them for the use of live stock men all over the world. Later experiments in this country have proved the Germans' feeding standards to be fairly accurate for America. These standards are given with full explanations in all of the really good books on feeding and in some of the experiment station bulletins. Any experiment station director will recommend some of the books or bulletins on feeding to the inquiring stockman.

Functions of Constituents.

All common feeds contain some or all of the fol-lowing materials,—ash, protein, carbohydrates, fat, and water. Ash builds up strong bones, and is needed for the blood, the tissues, and the digestive It consists of the mineral matter in feeds. Wood ashes and salt help supply it, and are espe-

cially needed by young growing animals.

Protein is the great muscle, nerve and train building compound. Hair, horns, hoofs, ligaments, and lean meat are largely protein. Milk and eggs contain much of it. Protein is about one-sixth nitrogen and is the most expensive feed compound. Tankage, gluten feed, oil meal, cotton seed meal, brewers' grains, leguminous plants like alfalfa clover, cowpeas, and soy beans, and several other high-priced feed stuffs are rich in protein.

high-priced feed stuffs are rich in protein. Carbohydrates are made up of carbon and the elements of which water is composed. Woody fibers and coarse brans are cheap carbohydrates. The more valuable materials of this sort are the gums, starches, and sugars. They are worth more because they are more easily digested than the fibrous feeds. Root crops, although they contain large amounts of water and require considerable labor in handling, usually contain fair quantities of the carbohydrates and perhaps deserve a wider use on American farms. Carbohydrates form fat and furnish energy.

Fat in feed has the same function as the carbo-hydrates, but it is two and one-fourth times as ef-fective. "Ether extract" is a better term for this substance than fat because other materials besides fat are included under this heading in feeding ta-

Water in feeds makes them more palatable as any farmer who has fed both silage and dry corn fodder knows. Water is a dissolving and a liquid in the animal body, but the water in feeds is Water is a dissolving and a carrying no better for these purposes than that obtained at

The Digestibility Question.

The digestibility of a feed helps determine its value. Coarse fodders are not digested readily, and are therefore worth less than their chemical con-

grain crops should completely mature. Horses and hogs do not digest as much of the coarse feeds asdo the cud-chewing animals like cattle and sheep, possibly because they have fewer stomachs. Because of this fact rations for horses and hogs should contain a Jesser amount of hays and bulky feeds of a similar nature, and more concentrates.

Animals of the same class differ in digestive abil-ity, some being easily kept and others seemingly eating without getting any good from the feed. This fact is included under the term individuality; just as some fat persons cannot reduce their weights without strenuous effort, so some animals gain in weight because of inherent tendencies to take on flesh. The best beef breeds are the ones in which this fattening tendency is most developed. However, to build an ideal beef carcass, the meat must show a marbled mixture of both fat and lean meat.

To Feed Profitably.

Accurate feading depends on a knowledge of the weight and composition of the body of the animal to be fed and the composition and weight of the product desired. With this knowledge the feed can be so made up as to include materials to repair tissues and maintain body weight, and to build up the special product, together with energy producing feed to give energy for digestion and for work. The first consideration in making a ration is that of cost. While it is usually advisable to use feeds produced on the farm, in certain cases it may be less expensive to sell some of the farm feeds and to buy others of different composition. Local market conditions need to be studied. If there is a de-

To allow the animals to eat all the feed they want tent might indicate. Hay should be cut before any mand for oat straw, much of this straw grown on is bad farm practice. Farm animals will eat seeds have ripened to be most digestible, while the farm may be sold and bran or some similar commore than is best for them and the rule of grain crops should completely mature. Horses and centrate used. Different animals can use different centrate used. Different animals can use different feeds. Swill will not appeal to a horse's appetite while prairie hay will be largely wasted if fed to hogs. Cattle, horses and sheep need a combination of the roughages, as hays, fodder, or silage, and the concentrates, as the grains, bran, oil cake, cotton seed meal, etc

Miscellaneous Pointers.

Lastly, a ration should be so made as to have the proper ratio between the protein or muscle buildproper ratio between the protein or muscle building feeds and the carbohydrates or heat and energy producing feeds. Tables showing the best ratios are given in almost every book on general agriculture. The more homegrown feeds which can be used in the ration, the cheaper will be the maintenance cost and the less expensive work or special product will be. The buying of ordinary stock tonics is a waste of money. Animals housed and fed properly do not need medicine with every meal. No matter how few head of live stock are being fed, every American farmer owes it to himself to learn feeding facts so that some of the great waste of food products can be eliminated. Chinese farm-

of food products can be eliminated. Chinese farmers feed hogs and poultry at much less expense relatively than farmers of the United States, and we of the west might learn farm economy from those Ori-entals who live in house boats raising poultry on the roof and fish in the compartments beneath to save the space a home and farmyard on land would occupy, and who pasture the grave lands, terrace the hillsides, reclaim swamps by draining and filiing with canal and river mud, and grow four or five crops a year to keep from starving.

Farm Blacksmith Shop Will Save Time and Money

money saver on the farm than a farm black-smith shop. The country blacksmith usually has the exasperating habit of not doing something just when we want it, especially if we want it badly. Many farmers have freed themselves of their dependence on the local blacksmith by installing a blacksmith shop of their own right on their own farm, and if you ask them they'll tell you it is the best thing they ever did.

But enabling you to have your blacksmith work when you need it is not the only advantage of a farm blacksmith shop. The work can often be done in the time that would be required to make the trip to the local blacksmith, thus saving considerable

HE farmer could not have a better time and time, which is an advantage of the farm blacksmith shop that cannot be appreciated until some part of the farm machinery breaks during a busy season when every minute counts.

when every minute counts.

With a little practice any farmer or hired man can do the little blacksmith jobs that almost daily turn up on every farm, and the saving in blacksmith bills will not be such an insignificant one. A small blacksmith shop will not cost much to install. There is some shop on most farms that could be utilized for the purpose and \$30 or \$40 would buy a good equipment. Or a small shop could be built and fitted out with the necessary tools for \$100 or less—about the amount of the average farmer's yearly blacksmith bill. I know many farmers who have blacksmith shops on their farms and all say they would not be without them. One farmer who installed one not long ago says he is only sorry he did not make the innovation long ago, as it would have enabled him to save a good many hundred dollars.

"Strike While the Iron is Het."

WHY THE SOIL GETS TIRED.

There are three ways in which a soil my become "exhausted;" (a) by removal of organic matter, (b) by the removal of plant-foot elements, and (c) by the loss of lime. On some soils like peat, for example, the removal of potassium or phosphorus alone through one or two croppings makes it unproductive. On most long-cropped upland soils the low right is the result of combination of two credits. yield is the result of a combination of two or all of the above causes.

Some of the early 50-bushel wheat lands are now 15-bushel oat lands. Such soils cannot be renovated in a season by the mere addition of manure, or a lit-tle phosphate. These soils work hard; they are lighter in color than they used to be, they bake, and clover fails to grow well on them any longer. Such soils need a tonic, they need "hospital" care; they need more or less feeding.

Bedding up high for garden plants is not considered as essential as formerly, but where the land is flat and the flood rains frequent, bedded up plants do much the better. It is a matter of common sense here as elsewhere,

Nuggets and Notions

In Agriculture By "Observer."

WESTERN writer asserts that wide tires do more damage to roads in a muddy time than narrow tires, and says that in muddy cornfields they are almost impossible. Just as the mud dries a wide tire acts well as a roller. Take it the year round, thinks, the narrow tire much better for the roads and easier for the team. Tests for the two tires have usually been made under condition more favorable to the broad tire. Here is room to think-and wrangle.

That there were artists in cookery long ago is shown by our use of the word "gingerbread" with reference to excessive ornaments in architecture. The fringed scalloping, notching, etc. by which the ancient mothers amused their children with their "cooky" is doubtless responsible for this use of the word.

If you are not intending to provide a lot of good litter for the cement floor in your hen house you had bet-ter build one of boards.

Kafir makes the better fodder, but the white yields the more grain and, if intended for the market, finds the better and quicker sale. In many regions the red is more susceptible to smut.

If time on the way is money the motor car certainly tops out the bank account for the farmer, but if time spent in town is merely the ashes of opportunity, why-? Perhaps daylight cannot be burnt in a more profitable place in the spring than in a furrow.

By bunching cattle in a pen or chute, and swabbing their backs with a strong kerosene emulsion the war-bles may be killed. Persistence in this practice in a co-operative neigh-borhood will shortly exterminate the pest or render it scarce.

All in all, weather and everything considered, it seems to the consensus of raisers that it is better to put cowpeas into small cocks as soon as cut, and let them cure there. This saves the most leaves.

Giving salt or ashes to hogs is the old fashioned way of administering the pew fashioned concentrated lye. A hog needs an alkali, because he has always been used to it in champing up so much soil with his rooted-up feed.

If a hen eats eggs the quicker you eat her the better. Others learn the practice very quickly by sharing her morsel with her.

Being at our best is being stiffly flexible, like a good rapier, ready for any emergency. It is only in rare conditions that we can run life on a rigid creed or a slogan. Growth is another word for change—always another word for change—always change to a better condition. In many cases, in order to grow, the change must be radical.

It is said by practical poultrymen that a young rooster will bring more money just as he approaches two pounds than at any other time of his life. It is presumed that the expense of feeding him further is involved in this atterner.

DUST STRIP STOPS CHINCH BUGS.

How can I get rid of chinch bugs? This is the question before everyone who has a field infested with them. Leonard Haseman of the department of entomology of the University of Missouri gives these directions:

and wet so that the disease will develop and kill the bugs, the only thing to do is to keep the bugs from going from the wheat to the corn. The young bugs cannot fly. They cannot crawl over fine dust, coal tar, crude till or similar chemicals. A strip of lust, or any chemical over which they hannot cross, distributed around a wheat field will keep most of the bugs within the field and save the corn. If the soil is dry enough to pulverize into the soil is dry enough to pulverize into sown broadcast in the infested areas a fine dust the "dust strip" will keep early in the morning, or about the the bugs from leaving the wheat field. time when the grasshoppers are be-

Cut a log about ten wheat field. inches in diameter and ten feet long. Drag this log back and forth in the furrow and the dirt will soon be pul-verized into a fine dust. Get this ditch in shape before the bugs start to leave the wheat. Keep the log going from 8 o'clock in the morning until 5 in the afternoon, as long as any bugs attempt to get out of the wheat field. The idea is to keep the bugs in the wheat field after the wheat is cut, so they will starve. If it rains, this dust strip will not work. In that case a chemical barrier will have to be used."

BINDER TROUBLE AVOIDED BY STARTING RIGHT.

self-binder probably receives more abuse and greater neglect than any other machine on the farm, according to M. A. R. Kelley, of the department of agricultural engineering of the University of Missouri. its life is measured in years, its use-fulness is counted in days. The average life of a binder is five years. During this period it is used a total of approximately 70 to 100 days. By providing adequate shelter for it and giving it proper care its life can be increased and the repair bills reduced.

One of the first things to do in getting the binder ready for the season's work is to see that the guards are in Sickle sections and ledger plates which are badly nicked should be replaced with new ones. Adjust the clips so that the sickle is held firmly gives a true shearing cut. The lost motion in the pitman and connec-tions should be taken up and the sickle made to register. If it is neces-sary to take the binder attachment apart, much trouble and time can be saved by marking the parts with a clod chisel, showing how they are put together, if they have not been previ-ously marked. If the knife is occa-sionally sharpened and kept in good condition it will relieve the strain and ear on the knotter parts

Oil should be used a little at a time. but at frequent intervals. parts of a binder require different amounts of lubrication. It is not necessary to give the binder frame a bath in oil and let the bearings oil themselves by process of absorption. This only aids in accumulation of dust which soon works into the bearings.

PREPARE FOR THE GRASSHOPPER INVASION.

Get ready with the bran mash poison for the grasshoppers are mobilizing. While there was no general infestation last year, reports from farmers in many parts of Kansas show that serious damage will be done this year unless precautionary measures are adopted.

"The conditions lest fall were very

"The conditions last fall were very favorable for the females to lay eggs," says George A. Dean, professor of entomology in the state agricultural college, "and many of the cultural college, "and many of the eggs passed through the winter safely. From the large number of grass-hoppers hatched this spring consid-

erable damage to farm and garden crops is probable."

In the last two years the poisoned bran mash flavored with fruit juice, which was discovered by Professor which was discovered by Professor Dean, has been thoroughly tested in this state as well as in other states and even foreign countries, and found highly effective. It is consequently recommended as the most effective and the most practical method of con-The bran mash is made of bran 20 pounds; Paris green, 1 pound; syrup, 2 quarts; oranges or lemons, 3; water 3½ gallons.

In preparing the bran "If the weather does not turn hot bran and Paris green dry are thoraid wet so that the disease will de-oughly mixed in a wash tub. The glop and kill the bugs, the only juice of the oranges or lemons is

"Plow a deep furrow around the ginning to move about from their

night's rest. It should be scattered in such a manner as to cover from four to five acres with the amount of bait made by using the quantities of ingredients given in the formula. Sowsparingly makes it impossible for birds, barnyard fowls, or live stock to secure a sufficient amount of the poison to kill them.

On alfalfa fields, the bait should be applied after a crop has been re-moved. If the grasshoppers are moving into the corn, alfalfa, new wheat, or garden, a strip of the poisoned bran mash should be scattered along the edge of the field. If they have already spread into the fields, the bran mash should be spread over the infested portions. The grasshoppers may keep coming into the crops from adjoining fields and it will be neces-sary in some cases to make second and even third applications of the balt at intervals of from three to four days.

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Canada is Calling You to her Rich Wheat Lands

This year wheat is higher but Canadian land just as cheap, so the opportunity is more attractive than ever. Canada wants you to help to feed the world by tilling some of her soil—land similar to that which during many years has averaged 20 to 45 bushels of wheat to the acre. Think what you can make with wheat around \$1 a bushel and land so easy to get. Wonderful yields also of Oata, Barley and Flax. Mixed farming is fully as profitable an industry as grain growing.

The Government this year is asking farners to put increased into grain. Military service is not compulsory in Canada but t great demand for farm labor to replace the many young zen wo volunteered for service. The climate is healthful and agrailway facilities excellent, good schools and churches ient. Write for literature and particulars as to reduced rates to Superintendent Immigration, Ottawa, Canada GEO. A. COOK, 125 W. 9th St., Kansas City, Mo.

C. J. BROUGHTON, 112 W. Adams St., Chicago, Ill.

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Separator Here is a machine that relieves you of all the drudgery and makes churning a pleasure. It's a profit-maker besides, for butter made by the "Fayway" is pure butter, free from casein and milk solids, of a perfect grain and wonderful texture; consequently, will keep sweet and fresh longer than other butter, and commands top market prices.

Anyone can operate the "Fayway" from start to finish. On account of its light running qualities, the quickness of operation, and the easy cleaning, the "Fayway" has brought to the women folks on the farm more relief from overwork and given more general satisfaction than any invention in farm equipment for the past fifty years.

from overwork and given more general satisfaction than any invention in farm equipment for the past fifty years.

Complete Course in Buttermaking given free with each machine, forming the first complete application of the principles of scientific methods to the production and sale of farm butter. Endorsed by the leading Dairy Authorities and used with great success by thousands of progressive farmers in all parts of the country.

The "Fayway" Butter Separator and "Fayway" System of Buttermaking have contributed more to the improvement of farm butter than any invention since the cream separator. We are doing and have done more to improve the quality of farm butter than any other firm or organization, and no principle or method has yet been advanced by any authority that treats of butternsking from such a real, true, economical and scientific standpoint as does the "Fayway" System, which is in general use everywhere. Here are a few of the many letters we receive:

Butter In Exactly Five Minutes After bringing our cream to 60° we proceeded to churn; it took me exactly five minutes to make the butter. Heretofore we have taken from seven to eight hours to churn the same amount of cream. Our cows are all strippers, and it is a hard matter to make butter with the old style churn. My wife is dalighted with the Fayway, and no more proof is required. You had given me thirty days in which to try it, but this simple trial is sufficient.

l is sufficient. CHARLES U. STRONG, Mora, New Mex.

Demand for Fayway Butter Larger

to Than I Can Supply

The Fayway Butter Separator certainly does
make fine butter; no hard work with ladle after
it comes together. I work it just two minutes
and it is as fine as salk. Have tested the butter
in a varying temperature and after three weeks

it was as good as the day it was churned. Already my demand for Fayway Butter is larger than I can supply. MRS, FRED KOHLER, Hamilton, O.

MRS, FRED KOHLER, Hamilton, C. Fayway Butter Takes First Prize
Please find enclosed draft for balance due on Fayway Butter Separator. Must say I am perfectly delighted with it.
Dunbar held its Annual Farmers' Institute last week. Had a chance to try out on my butter. Am proud to say took First Prize, which was speaking some for the Fayway.
MRS. JOHN T. HALL, Dunbar, Neb.
This Fayway Butter Brings The More Per Pound
We have raised the price on our butter from to 37% per pound, or, better still, our customers have raised it for us since we are using your machine.

your machine.

J. H. BOELTE, News Ferry, Va.

Our illustrated catalog tells you all about the "Fayway." Your is waiting for you. Send for it as well as our Bank Guarantee, Testimonial Letters, Cart Paper Proposition and Free Trial Offer. Just write us today. We will do the rest. THE FAYWAY CO., 109 John St., Cincinnati, Ohio

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COLMAN'S RURAL WORLD

A. B. CUTTING, Editor.

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Founded by Hon. Norman J. Colman Published by Colman's Rural World Publishing Co.

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HORSES, LIKE HUMANS, SHOULD START IN KINDERGARTEN

Every horseman knows that a horse should be schooled in a gradual way. Many a good horse has been ruined because the owner himself was either fractious and impatient and wouldn't take a little time to get the animal started off right, or he turned it over to an irresponsible person and allowed that person to try out his ideas as to how an unbroken animal should be "broken in." Either one of these plans will nearly always mean a ruined horse

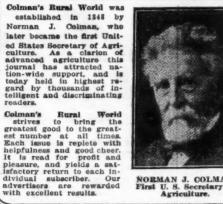
A case has come under our observation wherein such a finality was barely missed. A horse, which had been used exclusively for road work heretofore, was needed to pull the plow. The owner gave the animal to a young darkey to work with. The negro put the green horse to taking a full load even with the first furrow.

With the first few steps failing to show any lightening of the load the horse stopped and began to pat his feet and shake his head. Any one that has had anything to do with a horse, doesn't have to be told what this means. Leading off doesn't do, and whipping is worse still; but one or the other is generally resorted to -most times, especially with some, the latter is generally used.

But luckily for the horse owner in question, there was at hand an older, more experienced negro, who had learned how to "break in" green animals; and to him was given the job of taking the balk out of this horse.

The old darkey didn't sock the plow to the beam from the jump, and whoop "come up" at the top of his voice, which was just about what the younger darkey indulged in; rather, just the opposite was the older darkey's plan. Several rounds were made with not even the point of the plow touching the ground. Then a few were made with it barely skelping the top crust; a few more rounds were gone with, say, about half of the plow share in the soil; and so on. In an hour. or, maybe, less-an old ante-bellum negro had taken this horse and gotten, not only the greenness, but the balkiness, too, out of him, which trait the Jounger darkey had given to the horse, although he hadn't gone the first round with him bitched to the plow.

Not only is it a bad idea to turn such an animal over to careless persons to work, but it is just as bad for even a particular person to put a "quick 3 starter" along side of a slower one, (i. e., hitch a pert animal with a slow one) and put on a load that the one animal can't start. Of course, it isn't good practice, even when only the strain that the quicker animal is sure to undergo is considered; and it is still less so when it is known that in nearly every instance it will result in



NORMAN J. COLMAN, First U. S. Secretary of Agriculture.

Colman's Hural World is mailed postpaid to any address in the United States or island possessions for one dollar per year or three years for two dollars. All subscriptions payable in advance. Remit by draft, registered letter, post office or express money order. In changing address give old and new addresses.

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is valuable," but in such cases as the ticeable effect in increasing the crop ones cited, one's time can be made to yield. No doubt these "radium ferpay a greater profit by spending an tilizers" are of benefit to the soil, but hour or so of it in accustoming the the benefit is in all probability due horse to a load, instead of ruining him rather to the nitrogen, potash, and by using the whip and a bad temper "to make him go." Do not fool the horse at training time.

CLAIMED TO BE.

The columns of many of the magazines have recently carried advertisements of so called "radium fertilizers," setting forth in extravagant the use of radium as a manure.

These fertilizers are in most cases ordinary nitrogen, potash, and phosafter the extraction of all commercially available radium from its ores. dium is \$10,000 per grain, or \$70,000,-000 per pound, it is readily apparent that a fertilizer cannot contain very much of it, even when sold at the high price of 25 cents per pound.

growth are, at best, by no means lent home in the pastures, and on the proven. Prof. Cyril G. Hopkins, of the soft earth of the plowed fields. Illinois Agricultural experiment station, found that the application of ra- who keep three or four horses for each

the fast animal becoming "a balker." dium to the soil, in quantities worth With nearly all of us. at least "time as much as \$100 per acre, had no nophosphorus they contain than to any radium which may be present. Until the value of radium as a fertilizer has been actually demonstrated the econ-KADIUM FERTILIZERS NOT WHAT omy of paying high prices for such fertilizers is decidedly questionable.

COLTS VS. HEIFERS AS A SIDE-LINE-CONSIDER THE PROFITS.

Many farm horses now stand idle terms the benefits to be derived from through the winter months, or for nearly half the year. During that time, not having much to do, they are put on coarse and innutritious foods. phorus fertilizers, with the additior of, In the spring they come out with soft at most, infinitesimal quantities of muscles, soft and distorted feet, and radium, derived from the residues left wholly unfit for spring work. How can we overcome these unfavorable conditions and at the same time de-Since the present market price of ra- rive some profit from the horses at all seasons of the year?

Brood mares should be kept on farms to a much greater extent than they are, and fewer mares should go to the city. There the brood mares The claims that radium aids plant and the young animals find an excel-

Farmers engaged in mixed farming,

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THE HOPKINS SPECIAL AGENCY,

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100 acres of land, would do well to raise a few horses to sell each year. It costs only about \$15 to \$20 more to breed and rear a colt up to the age of three years than it does to rear a heifer to the same age. The colt may sell for \$150 to \$200, while the heifer may sell for \$40 or \$50. The cost of the food consumed by a colt up to three years of age will average about \$25 a year, despending largely on the value of the various foods. If an open shed is provided for shelter in the winter, and good pasture in summer, the colts will require but little attention.

The brood mare has earned, by her work, her own and her foal's food. and, in addition, enough to pay any ordinary bills incurred in the breeding and rearing of the colt.

The selling of the colts seems to be the most difficult problem with the average farmer, but it need not be when one considers it on sound business principles. In the case with the heifer, where the farmer raises it by hand from birth, he is well satisfied if he can sell it for 10 per cent above the cost of raising, but with the foal getting its own food up to the time it is weaned, and not receiving any riore care than does the heifer up to three years of age, the farmer will ask anywhere from 100 to 200 per cent, above the cost of raising. Is it not more profitable, while one has to keep the horses to do the work in the summer, to raise a few colts each year, than it would be to have them stand idle and depend on other sources for the profits of the farm? In this branch of stock raising, as in others, the animals are fed on the farm and the marure returned, thus enriching the soil and increasing the productiveness of the land. Raise colts as a sideline.

The house centipede, although disagreeable in appearance, feeds on small cockroaches, the typhoid fly, and other still more disagreeable insects, and therefore would not seem altogether an undesirable visitor in one's house. However, as one of the department's entomologists says in a recent Farmers' Bulletin (No. 627) dealing with this insect, "its uncanny appearance is hardly calculated to inspire confidence and it will unquestionably bits in self-defense, although very few cases of its having bitten any human being are on record." It does not feed on household goods and woolens, although many housewives hold this be-

It is a subversion of true breeding principles to attempt to unite profitably two such opposing temperaments as the milk temperament and the beef temperament. The production of socalled dual purpose cattle is uneconomic, so far at least as the dairy farmer is concerned; he cannot afford to fool away his time, labor and expense upon such cattle when he can get better.

20 Years Ago 40 Years Ago 👄

In Colman's Rural World.

(Issue of June 26, 1875.)

The farmers at their convention in Paola, Kansas, were unanimous in their belief that corn planted as late as May 20th makes splendid crops. . . One gentleman, from Osawatomie, said that in 1868 he raised a good crop of corn which was put in the ground as late as July 10.

Large numbers of cattle have been killed in Linn county, Kansas, by eating the leaves and buds of the buckeye growing in the river and creek bottoms. Complaints of great losses from the same cause come also from various counties in Missouri, and farmers will find it profitable to exterminate all the buckeye trees in their range.

(Issue of June 27, 1895.)

There is not another breed of sheep in England that can trace its history and origin so far back, or whose value to the sheep industry has been so continuous and so sharply defined for so many centuries, as the Ryeland. Breeds from counties of Hereford, Shropshire, Staffordshire and Oxford sheep were only varieties of the Ryeland breed.

The state board of agriculture is charged with the duty of selecting a man to serve as dairy commissioner. It is but natural that the Rural World should entertain considerable partiality for Mr. Chubbuck, our associate editor for many years. Few men in Missouri are more familiar with its people or indus-

WHAT TO DO WITH COCKERELS AND OLD HENS.

The "Swat the Rooster" campaigns which have been carried on in Missou-ri have resulted in much good. May designated as "Swat the was Rooster" Day, following which one produce firm in a Missouri town shipped a "henless" car load of poulto an eastern market. Three thousand five hundred old boys were crowded into one car and sent on their way to the soup house. This is only an example of what a number of dealers have done, yet the great volume of business was done by the hundreds of dealers who handled smaller numbers. The illustration given, however, is a good example of the amount saved to a community, even if that community was an entire county. Three thousand five hundred male birds would eat practically the same amount of food that the same number of hens would. This number of hens if kept till the last of next winter, the time of selling the males under the old system, would produce enough eggs to pay for many good cockerels for breeders which would not be relet for breeders which would not be related to the flocks. This is economy from the quality of the eggs in summer because of the eggs being infer-

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Without Lessons or Knowledge of Music Any One Can Play the Piano or Organ in One Hour.



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Impossible, you say? Let us prove it as are expense. We will teach you to play he plane or organ and will not ask one tent until you can play.

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Be sure to state how many white keys on your piano or organ. Do you read old-style note music? Give home address, street and number or R. F. D. Address Rasy Method Music Company.

721 Clarkson Bldg., Chicago, Ill.

Next in importance to "swatting the Rooster," is disposing of the cockerels. Many of the youngsters are developing combs and beginning to crow, so that "swatting the rooster" is not effective unless these cockerels are disposed of in some way

Dispose of Surplus Cockerels. We find cockerels kept for three reasons: First, for breeders, second, to be used by the family for meat food; and third, to get more weight before they are sold:

In the first case, breeders should not be selected to use in the same flock next year, and if the person is keeping them to sell as breeders, he should be prepared with yards so they will cause no trouble.

In the second case, it should be re-membered that cockerels are considperishable articles for the reason that after they pass a certain age, their value as a food decreases. Therefore, if they are to be kept and used as needed, they should be caponized. This will prove of value in three ways: Their value as a food increases as they get larger; they do not cause fertile eggs; and they do not fight with and injure the breeding

In the third case, where the cockerels are kept to increase their weight, it should be noticed that during the spring when the greatest number of cockerels are getting ready for mar-ket, the price often drops down so that like many cases which have been noted, a cockerel weighing 11/2 pounds and worth 20c per pound if kept for a few weeks, weighs 2½ opunds and is worth 12c per pound. It will be seen that it was worth just as much when it weighed 1½ pounds as when it weighed 2½ pounds. The time, labor and feed required to produce the last pound was lost.

Cull Out Unprofitable Hens.

As the hatching season is over and the young stock need the room, it is advisable to cull out and sell all hens which are not profitable. The question which at once presents itself is, "How can this be done?" Many methods of selecting the best hens have been tried here at the Missouri Poultry Experiment Station. Mountain Grove, but the best method for the inexperienced person is the shank col-or test with yellow legged varieties. Seventy-five tests were made during May with birds which had yellow shanks. Each flock was divided into three parts, one having bleached or white shanks, one having very light yellow shanks, and one having bright yellow shanks. It was found by consulting the records that to consider the ones with bleached shanks as 100 per cent, those with light yellow shanks were 79 per cent and the bright yellow shanks, 47 per cent.

The shank color test is the most retest for telling the hens that have laid the most eggs in the past few months. It does not tell the reasons for the ones not laying nor does it tell which will do the most laying in the future, but simply tells those that have done the laying in the past, which is a good indication of the good hens.

One reason for reducing the number of old birds to a minimum at this season is that in many flocks both old and young run together. The young chicks when feathering are very sensitive and nervous. In fact, fowls at any age which have lost their coat of feathers and are growing another coat, seem to be very sensitive and do not wish to associate with other fewls, especially if there is an inclination to pick at them. This results in the young chicks staying at a distance from the flock at feeding time. Then, too, the mature stock select the best range. This results in the pullets being improperly nourished and they do not develop properly to make good winter layers. One of the most critical stages in the life of any hen is when she is developing the egg organs. This period is when the pullet is from four to eight months of age, according to the breed, and is the time when she should receive the best of care, but often receives the poorest. By good care, we do not mean that she should be petted and pampered, but I mean that she should have plenty of good wholesome feed, roomy, sanitary roosting quarters with plenty of fresh air and no vermin.

MORE and BETTER WHEAT from the acre at less cost to grow.

- Two hundred to four hundred pounds of

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drilled in at seeding time will promote rapid root-growth, insure early maturity, heavy grain and more of it; reduced bushel cost; a good clover catch and a more profitable grain crop

IT'S THE YEAR the world needs the grain.

See Our Local Dealer or Write Us for "More Money From Wheat."

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IN THE URCHARD

Plant gladiolus bulbs for late fall flowers.

Stop cutting asparagus. Ma and thoroughly cultivate the bed.

Train dahlies to stakes, using but one or two stems, and disbud freely.

Now is a good time to take out the old wood from spirea, lilac, and mock orange.

Prepare all vegetables neatly for market. It pays. Clean, nicely graded vegetables bring better prices than poorly graded, unclean lots.

Pruning may be given elm, soft ma-ple, and other rapid-growing trees now. Some pruning is needed to keep them shapely and to prevent break-

ing over by the wind.
Good breeding in vegetable work is just as important as in live stock. Many gardeners use poor strains because good seed costs more. Figure the returns, and the good seed is cheapest.

Beets, kohlrabi, and onions are often

transplanted to advantage,

Cannas require a rich soil, plenty of water, and sun for their best develop-

Keep the blossoms picked from spring-set strawberries if you want strong plants.

Go over the rose bushes often and see that no slugs or leaf miners are working on them.

Watch for potato beetles. the old ones as they appear lessens the crop (of bugs) later in the season.

Thin beets, radishes, turnips and ther vegetables of this class. The

thinnings of beets make good "greens." The aphis, or green bug, on sweet peas may be kept in check by spraying with nicoticide, or with soap and wa

See that pans of water are placed so that birds can get to them easily these hot days. They enjoy the water and you will enjoy the birds. Double-cropping may be followed to

advantage in a small garden. Beans, corn, cucumbers, tomatoes, and late nicely.

Plow up the old strawberry bed as soon as it has fruited. Some late vegetable crop, such as late celery, cabbages, or turnips may be planted on the land.

Keep buckthorn hedges clipped, if smooth, even hedges are desired. They should be gone over as soon as the shoots become five or six inches long. Spray hardy roses with whale oil

More Money Wheat From

\$7.46 per acre profit, over and above the cost of fertilizers was obtained from the use of fertilizers on wheat on farms in 10 Indiana Counties when wheat sold at \$1 per bushel. 11/2 bushels increased yield per acre was obtained from fertilizers.

(See Indiana Experiment Station Cir-cular No. 23, Revised Edition, July, 1912).

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promptness. Send name today. People's Supply Co., Dept. RW 716 Lucas Ave., St. Lea

oil soap for aphis, or turn a good stiff these pests no quarters.

Keep the cultivator going among the outdoor crops. The more the ground is stirred the faster the plants grow. Before setting pots of flowers in the garden put an inch of ashes beneath

to keep the worms away. Pull out all surplus shoots on the dahlia; do not leave more than two stalks to each plant and secure these against wind and insects.

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INHERITANCE AND HEAVY HAR-NESS HORSE BREEDING.

Editor, Rural World:-Is it too late in the day to ask, if we are to have an American Heavy Harness or Carriage The government is now making the second cross in their produc-tion, using Wilmering 48569, sired by Motor 7411; g. dam, Hilda Vatican, by Vatican 11308, son of Bilmont 64. There would be nothing in breeding a new strain of blood, or in developing a new breed, if we ignore heredity in Carmen, by Carnegie, son of Robert McGregor, out of Anna Nutwood, dam of Nutwood Grattan, 2:07½ on a half-mile track; second dam, by Vermont Boy, son of Benedict Morrill, an intensely inbred Morgan. Robert Mc-Gregor and Nutwood were both chestnut or sorrel in color.

In 1844 the brown horse Mambrino Chief II. was foaled. He was by the big brown horse Mambrino Paymaster; dam untraced. Mambrino Chief sired the dam of Belmont 64, sire of Vatican in Wilmering's pedigree, also the dam of Onward 1411, sire of Motor 7411, rise of the dam of Wilmering 2:1214. Belmont also sired Nutwood 600, sire of Carnegie's dam. Belmont 64, out of Lady Mambrino, a black daughter of Mambrino Chief, sired Merchant 599, sire of Monitor 1327.

Merchant 599 was more like his sire than possibly any other son he sired. Trogan 312, a brown horse by Flying Cloud 134, black son of Black Hawk 5, out of a daughter of Andrew Jackson 4, a black son of Young Bashaw, sired. Trojana, (Sister to Ella Wright, 2:24%) that to Merchant 599, whose dam was black, produced Monitor 1327, sire of the dam of Carmen. Monltor 1327, was not only black himself, but continues to control color to a remarkable degree. All of the brood mares, at the Colman Stock Farm at Creve Coeur, in St. Louis county, car-ry more or less of the blood of Mon-

Baron Reaper, by the bay horse Early Reaper, 2:09%, whose sire and grand sire were both chestnut in color, took the color of the Nutwoods; yet crossed on the blood of Monitor, 13 out of 15 foals are bay or black in 1915. A bay daughter of Mondyke, son of Monitor 1327, bred to an imported German coach horse, himself a brown. or bay, produced a colt now in the stud as black as Monitor 1327 himself, with more style and action than self, with more style and action than his coach horse sire, and will be invaluable to Newton county, as a sire of the dams of the best class of Missouri mules, large enough and with action enough to class as sugar mules, the kind that invariably bring the high dollar. The dam of this horse was not only by Mondyke, a standard son of Monitor 1327, but his second dam was by Ben Patchen, a half brother to Francis Alexander 2:19, that was also a black horse.

In conformation, speed and all desirable qualities, nothing can be urged against Wilmering, yet some will object to his white markings, inherited from his dam by a son of Onward 1411, one of the largest of all the sons of George Wilkes 519, and one of the few 2:20 trotters that did not need the help of a steady handed driver. At St. Louis I saw him on a loose

a 2:20 gait. As Wilmering has his the costs of doing business are very speed developed to 2:12, and the Onhigh.

The ferming purchase that the retain butches at a butches are a summary and a summary and a summary and and Mambrino Chief blood dom—

The farmer gets for his animal 57 ward and Mambrino Chief blood dom-late in his inheritance, it will be sur-prising, if from the 20 standard and three saddle-bred mares, selected to three saddle-bred mares, selected to gether.

breed to Carmen, Ft. Collins does not send out the best heavy harness horses the world ever saw on the tan bark, and perhaps the best lot of horses ever bred anywhere for any kind of a hitch, even rivalling the little Morgans of a time antedating railroads, and all kinds of buz wagons. It may be well the government has entered the field to assist private enterprise.—L. E. Clement, Pierce City, Mo.

ON HOT DAYS GIVE THE HORSES A DRINK.

How horses have died through get-ting a drink of cold water when they were overheated, upon a hot day, is something that we have all often heard. It is something that has happened, and, when care and judgment are not exercised it will probably happen again. But no one hesitates about taking a drink himself upon hot days, and generally the results are not un-pleasant, and seldom serious. When horses are working hard in

hot weather, it is never wise to allow them to stop and fill up on cold water. But a light drink, taken in the middle of the forenoon and the afteroon, will do them good, not harm.

There is no better way than to take a pail to the field, and also a double handful of meal. Fill the pail with water and allow it to stand with the meal mixed in it, until the middle of the half day, period, and then allow. the half-day period, and then allow each horse to drink the half of it. This will be found not only a safe thing, but a very beneficial one as well, as it will refresh the team very much, and help them to withstand the long, hot days of hard labor with far less loss of flesh or of condition than they would otherwise sustain.

MEAT PRICE "SPREAD" IS AC-COUNTED FOR.

The facts as to who gets the difference between the retail prices of meats on the one hand and the prices paid the farmer for live animals on the other are being sifted at last. Kenneth F. Warner, of the Minnesota College of Agriculture, in an article on "Marketing Live Stock," in a bulletin on "Studies in Marketing," by L. D. H. Weld and others of the college of agriculture, shows pretty conclusively just what the situation is. It has been summarized as follows:

The weight of the dressed carcass is only 51 per cent of the live weight for cattle; 77 per cent for hogs; 47 per cent for sheep. In case of beef, the packer sells the whole carcass for less than he paid for the live animal. For example in 1913, the average price of cattle to the packers at South St. Paul was \$6.25 per hundred. Thus St. Paul was \$6.25 per hundred. Thus a 1,000-pound steer cost the packer \$62.50. He sold the carcass for \$58.65 (average), and got \$15.06 for by-products. Thus he received \$73.71 for the animal that cost \$62.50, a gross margin of \$11.21. Out of this \$11.21 the packer had to pay the expenses of his packing plant, the freight to local distributing houses, and the operation of these houses.

and the operation of these houses.

The retailer paid \$58.65 for the carcass, and sold the whole for \$84.20 to consumers, at prices ranging from 12 or 14 cents to 30 cents a pound, an line, go through and reverse the rib-bons, after the judges were ready to the whole carcass. The gross margin tie them on competing horses shown for the retailer was \$25.55, or 30.3 per Its sire and five of his get.

In Carmen and his get the blood of Monitor 1327, is the controlling element. Like Onward, he was too purement. Like Onward, he was too pure-

THE YOUNG.

The rupture of the umbilical or navel cord really means the rupture of three formerly important struc-tures, an artery vein and the umbilicus, each of which has a connection with the internal organs of with the internal organs of the young. The umbilicus is a tube which connects with the bladder, serving as an outlet for the urine before birth. It is normally closed at the time of birth though it may open again as a result of infection. The artery being elastic retracts easily and is not subject to infection. The vein remains open longer than the other structures and it is this portion which carries infection to other parts of the body, should the navel become infected.

The point at which the cord rup-tures is about two inches from the body. Normally the remaining por-tion dries and shrinks within two days thus removing all chance of in-fection. If the mother could give birth in a clean place, no thought regarding the navel cord would be necessary. This, however, is not possible in all cases although, if possible, let her give birth in a place free from decayed organic material such as manure. The pasture is pre-ferable providing weather conditions

If navel infections are prevalent in your locality or on your premises it is best to use additional precautions. Wash your hands in a two per centsolution of carbolic acid or its equivalent, then squeeze out the fluids from the navel with the thumb and from the havel with the thumb and forefinger. Thoroughly dust the navel with soothing astringent powder, as equal parts of tannic acid, boric acid and iodoform. Ligating the navel cord is not necessary in most cases but if you do, use a sterile cord and tie as close to the skin that covers the cord as possible.—Doctor Hahmer Jowa.

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IN WISCONSIN CHEESE FACTS ABOUT BRICK

Swiss, brick and Limburger cheese are the foreign types of commercial importance made in Wisconsin. Of these varieties, brick stands in a class by itself. Its manufacture is restricted to a small area, which devotes its energies almost wholly to the making of the one kind of cheese. Dodge County produces more brick cheese than all other counties combined.

In this locality the factory organization is distinctive. The buildings are generally owned co-operatively by the farmers, while the machinery belongs to cheese dealers. Under this arrangement the dealer buys the milk, hires the cheese-maker, and of course, sells the product which belongs to

In 1913, dealers controlled 105 of the 137 factories in the county.

Dodge County is conspicuous in the cheese industry because of its lack of warehouses. But since the dealer of warehouses. But since the dealer in that locality controls the output of a certain number of factories, and since he can estimate the future supply of his factories with a great deal of accuracy, orders may be billed direct from the place of manufacture rather than have the cheese concen-

trated in warehouses for shipment.
Wisconsin's brick cheese is made
largely in Dodge County, but where is it consumer?

A record of the shipment of 2,000,000 pounds of this type of cheese in 1912 showed that it was sent directly from Wisconsin to 28 states in the Union. However, nearly 2 per cent of this amount went to Chicago, the greater part of which was redistributed to other states. This type of cheese is consumed largely in the north and north central states, little of it being used in the south or southwestern sections. Probably the principal reason why more of it does not go south is because of its being of a soft variety which is highly perishable in a warm climate. Then again, foreign types are largely consumed in industrial and populous centers. The agricultural class as a rule do not fancy cheese of an unusual flavor.

The weighted average price paid for milk in Dodge County for the year 1913 was around \$1.29 per hundred pounds. Assuming that 10½ pounds of brick cheese can be made on an average from 100 pounds of milk, the farmer received about 12 1/2 cents for enough milk to make a pound of cheese of this kind. This same cheese for which the farmer was paid 121/2 cents sold to the consumer taking the United States as a whole, at approximately 25% cents per pound.

GOOD MILK AND HOW TO HAVE IT KEEP CLEAN

It is not always fully realized that milk, as it is produced in the udder of a healthy cow, is a pure food. The task of the milk producer having a healthy herd then is to get the milk as the cow gives it and keep it clean and cold.

The bacteria which make the milk spoil and render it unsafe for human food come from the dirt, or excrement, on the cow's flanks and udder, from the dust of the barn, from dirty, and unsterilized utensils, and from the person and clothes of the milker. Accordingly, it pays to have the milk producer keep clean. He should keep cows clean, his barn clean, his milking utensils clean and sterile, and above all he and his help should be clean and healthy. It is not neces-sary to wear expensive clothes to milk in, but it is important that the milker should have clean clothes and clean hands. It is not necessary that the milker should have small, white hands with tapering fingers, but it analyses of all the common feeds. It is necessary that his or her hands be time to become familiar enough with clean. It is not at all essential that

the dairy barn be architecturally perfect or the walls enameled and gilded, but all dairy barns should be plainly constructed, and free from unnecessary material. The walls ceiling should be comparat ceiling should be comparatively smooth, the floors, stall and mangers tight and sanitary and the roof well lighted, and sufficietnly large to furnish an abundant supply of air for the cows.

The most importat thing is cleanliness. A clean barn, with clean cows. clean milker, and clean utersils, make clean milk.

To keep milk pure the producer must uderstand the meaning of clean-He must know how to put derstanding into practice. Mr. liness. this understanding into practice. or Mrs. Consumer can help him by letting him know that they under-stand what cleanliness means and that they are willing to pay the extra cost of producing a clean product. If the consumer and producer could get together and talk these things over the consumer would come to realize the real problems of the producer and the producer would be more reasonable and kindly disposed towards the consumer. The producer would keep his milk pure, and the consumer would better appreciate the value of a clean p Wisconsin. clean product.-Dr. W. D. Frost,

WORK OF THE TESTER IN COW TESTING ASSOCIATIONS.

The main purpose of a cow-testing association is to enable its members to hire a tester to keep the records which in practice it is almost impos-sible for the farmer to keep for himself. The tester should arrive at the farm in time for the afternoon milking, weigh the milk given by each cow in the herd, and take a sample of it to test for butter fat. At feeding time he weighs the feed given each cow and estimates as well the amount of roughage. He also keeps a record of feed given to dry cows as well as those in milk, for it is obvious that the to-tal cost of feed for the year must be taken into consideration. The following morning the individual production of the herd is weighed again and if the ration is changed the feed also is weighed. Later in the day the Babcock test is used to determine the percentage of butter fat in each cow's From these figures it is possible to estimate the amount of milk and butter fat given in a month by a cow and set against it the amount of feed consumed. This method, of course, does not produce scientific accuracy, but careful tests prove the contention.

Another feature of the tester's work is to watch the prices of various feedings and then to work out for the farmer the most economical ration. This, together with the weighing and testing of the milk will occupy him until it is time for him to leave in order to arrive at the next farm to test the afternoon milking. Thus the tester devotes one day a month to each member in the association and this limits the number of members to 25 or 26, the number of working days in a month, and defines within somewhat narrow limits the expenses of conducting the association. This has been found to be about \$550, a year, including the salary of the tester, the cost of the acid for the Babcock test, and miscellaneous expenses. All expenses are usually borne by the members in proportion to the number of cows they own. Where the herds are large this may be \$1, a cow, but genrally it is \$1.50 a year for each cow. To many farmers it may seem unnecessary to hire a man to do work which they themselves are perfectly capable of doing. The answer to this is that while the farmer unquestionably could do it, it is likely that during the pressure of other work he would slight his tests. As a matter of fact, the number of dairymen who actually do keep records of their work year is insignificant; for the whole moreover it is really cheaper to have it done by the tester than to do it one's self. Experience has made the tester rapid and accurate; he has at his fingers' ends the strength of the acid he uses, the amount to charge for roughage and concentrates, and the analyses of all the common feeds. It would take the average farmer a long

as the tester does.

THE BIG CHEESE.

How Canada captured the Old Country market for Canadian cheese is a story that apparently has been all too well forgotten. But it is brought to mind by the announcement that there is to be seen at the Panama Pacific Exposition, the largest cheese ever made in the United States. It is four feet six inches in height, and six feet six inches in diameter, and took 100,-000 lbs. of milk to make.

It was away back in 1892 that our Dairy Commissioner J. A. Ruddick with 12 other good cheesemakers to help, built the mammoth Canadian cheese that was exhibited at the World's Fair, Chicago, and afterward Century Mercantile Co., St. Louis, 16,

was sold to the world famous Thomas Lipton. / This cheese took 207,200 of milk. It weighed 22,000 lbs. Let This was the largest of many large cheese made in Canada to adverte Canadian cheese in the Old County. -Canadian Countryman.

Free cakes of Complexion Soap. No money or et

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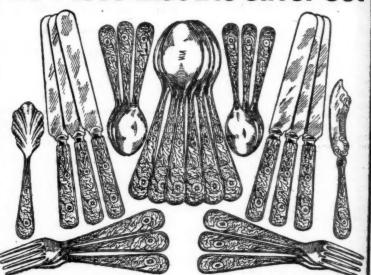
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We have just received a fresh shipment of these beautiful 26-piece Electric Silver Sets from the factory. They won't last long. Send for your set today. We refund your money if you are not satisfied.

26-Piece Electric Silver Set



We Want You to Have a Set of This Silverware

We have in the past made many fine premium offers of silverware to readers of Colman's Rural World, but this is the first time we have ever been able to offer a complete electric Silver Set on such a liberal offer. And please don't think because we are giving away this aplendid set on such liberal terms that it is the ordinary cheap silverware which is plated on a brass base and consequently changes color and has that "brassy" look just as soon as the plating wears of. This set which we offer you here is plated on a white metal base, therefore each and svery place is the same color all the way through and will wear for years. As shown in the above illustration there are 25 places in this set—6 Knives, 6 Forks, 6 Teaspoons, 6 Tablespoons, Sugar Shell and Butter Knife. Each piece is full regulation size for family use, the handles are handsomely embossed and decorated with the beautiful Daisy design which is now so popular and the blades of the knives and bowls of the teaspoons and tablespoons are perfectly plain and bright polished.

It is only because we buy this set in large quantities direct from the factory that we are able to secure if at a price that enables us to make the remarkable offer below. It is by far the greatest value we have ever offered. We will send this beautiful 36-Piece Electric Silver Set exactly as illustrated and described to any address upon the terms of the following special offer.

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Send us a one year's new or renewal subscription to Colman's Rural World our special price of \$1.00 and 25 cents extra to help pay postage and packic charges on the 26-piece Electric Silver-Set—total \$1.25, and the complete Se-Pie Silver Set will be sent you by return mail—all obarges paid. If you cannot set new subscription to Colman's Rural World just send us \$1.25 and we will add one year's subscription to your own subscription to Colman's Rural World. Ti offer may not appear again. Remember, for \$1.25 you get Colman's Rural World. one year, and in addition we send you the 26-Piece Electric Silver Set prepaid. Sign the coupon below today before this offer is withdrawn.

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THE HOME CIRCLE AND THE KITCHEN

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MORNING IN JUNE.

there's not an hour in all the day, From early morn till night, That bids my fancy freely play With so much keen delight, As do those moments in the morn. So fresh and free from care, When nature's beauties all are born And flung into the air.

There's not a month in all the year Whose morning hours attune My soul to dwell in higher sphere Than do the morns of June. When sable curtains are withdrawn And day is peeping through, The night recedes and rosy dawn Comes tripping in the dew.

The morns in June are jewels rare That we may all possess; Their wealth and beauty all may

There's peace and happiness In all the morns of all the days In all the years that run, If we but watch the golden rays As each day is begun.

Illinois. WALTER S. WHITACRE.

POETRY VS. RHYME.

To the Home Circle: I must confess to a liking for the merry jingle of rhymes, even when they are lacking in every element that we find in real poetry, except the rhyming. I love real poetry much more, but when the fingle and the poetry are combined then my very soul seems entranced by the melody. Sometimes we find this combination in songs, so melodious that we never forget their charm. One that recurs to my mind just now is "The Rain on the Roof." I do not recall the author's name—as one often forgets the singer when vividly con-scious of his song. What could com-bine with real poetry more exquisite melody than these few verses:

"When the humid shadows gather over all the starry spheres, And the melancholly darkness gently weeps in rainy tears," etc.



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"Every tinkle on the shingle Hatch an echo in the heart— And a thousand dreamy fancies into

busy being start,
And a thousand recollections weave
their bright hues into woof,
As we listen to the patter of the soft

The entire poem is full of fine imagery, beautifully expressed.

Who has not been thrilled by that

rain on the roof."

haunting melody of words which never can grow stale or fail to touch the heart of any man or woman who has lived and suffered—I allude to

Backward turn backward, oh, time, in thy flight, Make me a child again, just for to-

Mother, come back from the echoless shore, Take me again in your arms as of yore."

I do not recall the next line, but do not forget the plea:

"Rock me to sleep, mother, rock me to sleep.

One of the finest samples of real poetry can be found in "Father Ryan's "Song of the Mystic," indeed the whole poem is perfect in rhyme and full of the subtle essence of genuine poetry. What could be finer than this:

"In the hush of the valley of Silence, I dream all the songs that I sing, And the music floats down the dim

valley
Till each finds a word, for a wing That to hearts-like the dove of the deluge

A message of peace it may bring.

Far out on the deep there are billows That never shall break on the beach,

And I have heard songs in the silence That never shall float into speech. And I have had dreams in the valley, Too lofty for language to reach."

Here comes the climax of poetic imagery:

"And I have seen thoughts in the valley— Ah me! How my spirit was stirred,

They wear holy veils o'er their faces, Their footsteps can scarcely be heard-

They pass through the valley, like virgins Too pure for the touch of a word."

they may be judged from the stand-point of genuine poetry.

What a gloomy old world this would what a gloomy old world this would be without its singers! Without poets and birds of song! Yet the English sparrow hates the songbirds, pre-ferring its own unmelodious cheep! cheep! cheep! to the tuneful melody and the robin, the thrush, the blue-bird, oriole or any other songster. And there are many little soulless "peny-a-liners" who would stifle all the songs of the human singers; they are the English sparrows of the press, who by ridicule and open contempt have silenced many singers who might have had a sweet message of hope and cheer for the world if they had not been ridiculed out of litera-

"Tommy Rot!" has been the death of more than one gifted soul in the song world and doubtless will snugly murder many more, as he endeavors that his little soul and narrow mind does not comprehend. Fortunately for the singers there are others who try to help, and who do not scorn even humblest verse maker, lest they quench a talent which may develop into real poetry.—May Myrtle, Missouri.

Crushed egg shells in water are excellent for cleaning milk and water bottles, medicine bottles, etc.

IF EVER I OWNED A LITTLE HOME.

Dear Home Circle:-I have often thought what I'd do if ever the owner of a little home. First a grape vine would be planted; then a bird house or two, would invite winged tenants to enter in and live rent free. Next a cistern and well would open gaps in the soil. Of course, there would be fruit trees, and trees of the forestbut the grape vine would be sure to find lodgement with me, as I think it one of the beautiful sights that are so plentiful in this existence, one of the "little things of life!"

When I thus lay bare my heart, gentle friends, you truly can gauge my emotions when I stood by, three years ago and witnessed a cousin enter upon her reign as owner of a pretty estate, and her first official act was to sign the death sentence of the aged, but fruitful grape vine; the destruction of the cistern, the wrecking of the pigeon loft and marten house; the cutting down of honey locust, elm and ailanthus trees, (one of each, only trees on the place) and then the gen-tle hibiscus, Virginia creeper, lilac, mock gooseberry and bridal veil were ordered to the block. Her reason: the grape-vine would draw children—the other would "make dirt on the prem-

When life was in its early morn, there was a grape vine growing over a trellis just outside our door. As a baby I was held up to admire and touch the leaves and, when three years and a half old I was being led away to a new home, they told me there was a sudden outburst and, questioned as to the cause, there was a choking, sobbing: "Don't take me away from the grape vine!" Then after a parley, I demanded to be lifted up to kise the vine and say good-bye!

Life, never since let me come so near to the beloved object—that simple, fruitful plant, but love has not diminished, and I pride myself in the thought that the grape, ripening when the harvest days are past is like unto the winter apple, or akin to the pleasures that come when life is opening its western windows. It might lose its unique distinction did it produce its purple clusters when the long bright days of summer were on the land;

coming into ripeness in the fruit season, it "would lose its pennants in the clustering soils."

It may be that the most western west window of life will be overhung by a grape vine; the airy castles of youth had the vine growing over the round towers and a life long fealty surely deserves recognition. surely deserves recognition.

I want no better thought than the one that centers around the bird house; the vine; the cistern; the fernlike fronds of dark green lace that drapes the honey locust bough; the fall of the chestnut, the dropping of acorns on the roof; the patter of sum-mer rains, and toward dawn, the murmuring of birds and the lusty call of the chanticleer that blends so alluring with the pearly radiance, the mystery we call day-break!—Mrs. M. H. Menaugh, St. Louis.

A BIRD'S LESSON.

A bird outside the window pane One day was singing in the rain.
"Twas cold outside, yet seemed to

say:
"Twill be all right another day" yet folks did pout, and seemed put out Because of chilly rain in May.

Well, the next day sure, the sun came out,

And many buds did seem to sprout, And the little bird came 'round again,
While thoughts of the day before
came plain.

And birdie said, as it swung its head: "Don't you know 'tis nicer after rain?"
So, after we've had our time of gloom,
Joy in our hearts will take a boom.
St. Louis. ALBERT E. VASSAR.

HOUSEHOLD HINTS.

After meat has been ground in the food chopper, run a piece of bread through, and it will clean much easier.

scorched in boiling, set immediately in a pan of cold water in a pan of cold water, then empty into a clean dish.

A little alcohol put on a brush or applied directly to a tangle will rob hair combing of its dread to sick people and little girls with tender heads.

Timely Tips for the Housewife

II. A Symphony of Salads

By Nettie E. Maxwell, University of Wisconsin.

Salads will never go out of style, crisp well dried lettuce with the for they are such refreshing as well nuts and serve with French Dress-Quoting entirely from memory, I as nourishing dishes that they should may not have given in each case the be on our tables as often as it is lines exact, but near enough so that possible to prepare them. possible to prepare them.

The very early salads may include the young dandelion and any that have chanced to grow under woodpiles or boards, when they will be beautifully white, tender and crisp. A few of these blanched dandelions cut up and mixed with a green onion or two likewise cut fine, and a simple salad dressing of oil and vinegar with a dash of catsup and salt and pepper, makes a most appetizing salad. One may use any desired salad dressing but oil is so meaty and sweet and withal so full of nourishment that everybody should learn to like good oilve oil. olive oil.

Pepper grass and the mustard that is so annoying in the field as a weed makes fine salads if dressed with

near a small brook or creek where the water cress grows there is always a supply of a most wholesome green. Served with lamb or pork chops just as a garnish and eaten without any dressing it is a most piquant and tasty salad. Mixed with lettuce or permitted to live a with a lettuce or permitted to live and state of the live and piquant and tasty salad. Mixed with lettuce or pepper grass or served alone with French Dressing of oil, three parts, and vinegar, one part, salt and pepper to taste, it is a salad par excellence.

nuts and serve with French Dressing. A very little shredded onion may be added for variety.

Outside leaves of cabbage rolled closely and cut with a sharp knife make a pretty garnish for any salad. The little curls may be crisped by standing a time in cold water. When one wishes to make a salad expectable. standing a time in cold water. When one wishes to make a salad especially pretty slices, cut very thin, of crisp red radishes arranged in over lapping rows make a very attractive garnish. Radishes cut to simulate tulips is another way to treat them. The brilliant red of the radish is a most pleasing color but should not be used with carrots or the red of beets, in fact too many colors are not in good taste on any dish.

On the farm where there are plenty of fresh green vegetables and always eggs, delicious cream and butter, one

eggs, delicious cream and butter, one may have salad dressings galore for any number of salad combinations. A Good Salad Dressing That Keeps.

whisk while cooking the dressing is smoother. Put into a fruit far and set in a cool place. When it is needed take out two or three tablespoonfuls, add sugar, salt, red pepper, paprika, mustard and cream to thin. If making a fruit salad, omit the mus-Simple Lettuce and Peanut Salad. tard and pepper. This is so easy to See that the peanuts are freshly make and such a comfort to have that roasted, roll with a rolling pin to every farmer's wife should keep a jar crush like coarse crumbs. Sprinkle on hand.

THE RURAL WORLD PATTERN SERVICE 1344 1337 1359

bust measure only; for skirts, give inch material for a 4-year size waist measure only; for children, give 1195. Boys' Suit With Straight patterns while for for aprons say, large, small or medium.

Dress for Misses and Small

Women, With or Without Bolero.
Cut in three sizes: 16, 18 and 20
years. It requires 7½ yards of 27inch material for an 18 year size, with 1 yard for bolero. The skirt measures 2 2-3 yards at the lower edge 1362. Ladies Over Waist and Two Bo-

leros. Cut in three sizes: Small, medium and large. It requires 1¼ yards of 24-inch material for No. 1, 1% yard of 27-inch material for No. 2, and 11/4 yards of 36-inch material for No. 3 for

1144. Ladies' Apron. three sizes: Small, medium 1030. Girls' Two-Piece Dress.

Cut in four sizes: 4, 6, 8 and 10 each. years. It requires 2% yards of 36-inch material for an 8-year size. 1175. Child's Rompers.

In ordering patterns for waist, give years. It requires 2% yards of 36-1195. Boys' Suit With Straight Trous-

ers. Cut in four sizes:

years. It requires 31/8 yards of 44-inch material for a 4-year size.

1338. Girls' Dress.

Cut in four sizes: 4, 6, 8 and 10 years. It requires 3½ yards of 36-inch material for a 6-year size.

1078, Girls' Dress.

years. inch material for a 10-year size.

1361-1345. Ladies' Costume.

Waist No. 1361 is cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt No. 1345 is cut in six sizes: 22, 24, 26, 28, 30, and 32 inches waist measure. It requires 71/8 yards and large. It requires 4% yards of 27inch material for a medium size.

1030. Cirls The Discount of 36-inch material, with 1½ yards for the tunic, for a medium size. The skirt measures about 2½ yards. skirt measures about 3% yards at the foot. Two separate patterns, 10c for

1359. Junior Dress.
Cut in three sizes: 12, 14 and 16
years. It requires 5¼ yards of 36-inch Cut in four sizes: 3, 4, 5 and 6 material for a 14-year size. The skirt Address

Conducted by the President-Essillyn Dale Nichols, 1527 35th St., Rock Island, Illinois.

Dear children, our first prize game for this week was sent in by Elmer Arnott of Stilwell, Okla., whose game is called "Who is It?"

Who is It?

(Described by Elmer Arnott.)

To begin the game, the girls go in one room and the boys in another and they are separated by hanging a quilt or curtain across the doorway. The girls are all numbered 1, 2, 3, 4, 5, etc. Then No. 1 goes to the curtain, and holds her hand up above it just high enough so the boys can see it without seeing the sleeve of the dress she is wearing. Each boy then guesses who the hand belongs to and sets his guess down on a slips of paper. Then girl No. 2 goes to the curtain and holds her hand above it as No. 1 did and the boys all guess as they did before and write their guesses on paper. This continues until all the girls have held their hands above the curtain. The boy who has the larg-est number of correct guesses wins

But if the players desire to continue the game the boys are numbered 1, 2, 3, 4, 5, etc., in the same manas the girls were and each boy holds one of their shoes above the curtain and the girls guess who it belongs to and set their guesses on paper in the same way the boys did. And the girl having the largest num-ber of correct guesses wins. Or the game may be continued still further by cutting a small aperture in the curtain and the players on one side may each expose an ear which the op-posite side guesses, or the game may be continued by cutting two holes in the curtain and each player in turn exposing their eyes while the other side guesses. Elmer says this game is of special interest because it learns the players to pay attention to details.

Elmer—I think your game a good one indeed, and I am sure our little members will find it instructive as well as very amusing. I will se you a prize for this game soon. I will send am glad you and your brother and sister enjoy the Merry Game Club so well. Our next prize game was sent in by Oriss Arnott of Stilwell, Okla., whose game is called "How do You Like Your Neighbor?

How Do You Like Your Neighbor. (Described by Oriss Arnott.) The players are all seated except

measures about 2% yards at the lower 1337. Girls' Dress.

material for an 8-year size. 1344. Ladies' House Dress, With or Without Collar.

Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 8 yards of 27-inch material for a 36-inch size. The skirt measures about 2% yards at the foot.

These patterns will be sent to RU-Cut in four sizes: 8, 10, 12 and 14 RAL WORLD subscribers for 10 cents ears. It requires 41/2 yards of 36-each (silver or stamps). each (silver or stamps).

If you want more than one pattern, send 10 cents for each, additional pattern desired.

COLMAN'S RURAL WOLL Lucas Ave., St. Louis, Mo.:

Pattern No	Size	Years
Bust	in. Waist	fn.
Mama		

the "leader," who begins the by asking one of the players the question: "How do you like your neighbor?" The player must either answer, "Not at all" or "Very much" answer, "Not at all or very much"
If the first named answer is given
the leader asks: "Whom would you
like instead?" The player makes a
selection and the old neighbor and the new one must change places. During the exchange the leader tries to get one of the seats. Of course, during this wholesale exchanging the leader tries to get a seat and the one left standing must be leader.

Oriss—I expect this is a pretty live-

ly game, isn't it? I think it is some-thing like a game called "Fruit Bas-ket," which I used to play when I was a little girl. I will send you a prize shortly. Your sister Elsies prize shortly. Your sister Elsie's game will be printed next week; also a game sent in by Louis Hull of South Carolina. I did not have room

print them this week.

Daisy Kemp, Tyrone, Okla.—Your game has been printed before, but I will send you a prize for your trouble in writing it and sending it in.

in writing it and sending it in.

Following is a list of names and addresses from whom games have been received recently: Pauline Martin, Lundy's Lane, Pa.; Mary R. Cooper, Greensboro, Ala.; Ethed Herring, Jackson, Ga., Dovie Belcher, Mt. Pleasant, Tex.; Wilma Burkholder, Beaver Dam, Ohio; Senora King, Charlotte, N. C.; Esther Evans, Charlotte, N. C.; Mary King, Charlotte, N. C.; Ruth Donaway, Dagsboro, Del.; Hazel Gullet, Seney, Ky.: Bessie Hazel Gullet, Seney, Ky.; Bessie Hartman, Farmdale, O.; Ida Million, Hamburg, Ia.; Maria Isabell Brown, Newport, Vt.; George Smithers, Per-rin, Tex.; Lora Morris, Hartsell, Ala.; Vashti Dunning, Aulander, N. C.; Mozelle Kilchings, Plum Branch, S. C.; Minnie Erhart, Ottawa, O.; Ethel Spencer, Collins, Mo.; Madie Jordan, Rockingham, Ga.; Clyde Hammond, Heath Springs, S. C.; Hazel Nelson, Goltry, Okla.

This is all for this week. Good-

USES OF PAPER IN THE HOME.

The uses of paper in housework are being more and more realized, until it seems as if the day may come when such things as dust-cloths and cleaning-cloths generally will be out of date.

We hear of paper dish-cloths now, said to be sufficiently durable to serve several times and to withstand the wear of cleansing after each time of use.

Paper hand towels and paper in rolls take the place of the old crash roller, and a bit torn off the roll is useful in emergencies when some thing is spoiled on stove, floor or ta-

Blotting paper has its kitchen uses too, such as drying croquettes and other fried food from which superfluous grease should be removed. The cheapest blotting paper is bought in large sheets, and then cut into convenient sizes.

Waxed or paraffin paper is almost an essential. It is used to line cake tins, it is used to hold candies and other confections while they are dry-Cut in four sizes: 6, 8, 10 and 12 ing. Rounds of waxed paper, of ordi-years. It requires 3 yards of 44-inch nary layer-cake-tin size, are sold in packages, and save the time and trouble of cutting.

There should be a good supply of fresh food-wrapping paper, heavy and Large-sized light, kept on hand. Large-sized sheets can be bought by the dozen inexpensively, a plan that is better than that of saving old pieces of wrapping the cleanliness of which we paper, cannot feel sure of.

Shelf paper is taken for granted in many kitchens. It comes cut into patterns and in widths for shelves of various sizes. Some housekeepers pre-fer a shelf covering of oilcloth or rn desired.
Fill out this coupon and send it to enamel, which can be washen, and on the coupon and send it to enamel, which can be washen, and on the coupon and send it to enamel, which can be washen, and on the coupon and enameled shelves without a covering under the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel, which can be washen, and the coupon and send it to enamel the coupon and send it to ename the coupon and send it to ename the coupon and which dust may gather.

> Brooms dipped in boiling water once a week become tough and dur-able, sweep better, and do not cut carpets.

Equal parts of orris root and sachet powder give a much more lasting well as delicate, odor than the sachet powder alone.

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PRIVATE AUSTIN sat languidly upon his cot and slowly raised a cloud above his head from the disreputable black pipe firmly clenched between his teeth. His eyes, wandering aimlessly, finally rested upon a hotsun leaning assents the constitution. shotgun leaning against the opposite wall,—one of two furnished by a kind and benignant government for the sole and exclusive use of the sportively inelined members of Company A- and his vague unrest took form in a desire to spend the day with that gun upon the prairie in a search for solitude and game.

To gain this privilege, the consent of the officer on duty was indispensable, and Private Austin who had seen much pack-drill and who had acquired a valuable familiarity with the inside of the guard-house, knew that this consent was not for him. However he arose, giving himself a vigorous shake, and his attire, previously wrinkled in-to a thousand twists and creases, became the undress uniform of a prirate of remarkably neat appearance, passing along the narrow gangway between the long line of cots, taking care in doing so not to awaken the sweltering tossing figures slumbering uneasily upon them, he reached the door and stepped out into the open

For an instant as he inhaled the fresh morning air and gazed upon the

blue hills rising from the level stretch of plain, their dusky outlines now tipped as with gold by the sun, his own mean life—his rough companions—were forgotten. Then as slowly and reluctantly his eyes turned from their distant point of vision and roamed around the circle of accustomed objects—the white from cotters of the jects,—the white frame cottages of the officers' quarters, the bleak, stern, uncompromising walls of the too fa-millar guard-house, the well beaten earth of the abhored parade ground, the very stunted trees that seemed to have lost all graceful form and to stand in stiff unbending ranks as though nature itself felt the control of a military despotism,—he was ence more a soldier, common and unclean, with an unquenchable thirst for beer and a loathing for all discipline.

As he stood alone with his disgust, his attention centered itself upon Lieutenat Parsons who was returning at breakneck speed from his morning canter. As the lieutenant drew near the post he reined in his horse. This gave Private Austin an opportunity

to approach and make his petition.
Lieutenant Parsons turned in his saddle and looked at the soldier in utter unmittigated contempt. To the disciplined well-trained West Pointer the general conduct of Private Austin-could only be accounted for by a moral turpitude and a state of original sin shocking to all well-ordered minds, and his present highly audacious re-quest was but one of those constitu-tional aberrations arising from that condition.

A prompt and vigorous expression of his opinion was on his tongue's end, but contenting himself with a brief answer in the negative, half deadened by the bugle-call which rang out at the moment, he continued on his way to headquarters.

Private Austin followed with his glance the figure of his superior until giance the figure of his superior until he had reached a distance that made comment safe and pleasant, when he proceeded to express himself in such crisp and beligerent English as only the resident of a military post would be able to appreciate. He continued as he re-entered the barracks to voice his indirection in a fashion both edihis indignation in a fashion both edi-fying and pleasing to the aroused sol-diers. Then suddenly he picked up a shotgun and made his way to the rear of the room, heedless alike of the sergeant's sharp command to stop his noise and fall in line and the wondering gaze of his fellows. With a vicious jerk he tossed open a window and carefully deposited the gun without, immediately following with government property, namely, Private Austin, of Company A.

As the others emerged upon the open space before the barracks, he shouldered his gun and walked off in a deliberate and unconcerned manner, taking care, however, to manneuver a course that brought the barracks between himself and the rapidly assembling regiment upon the parade ground. But the deliberateness of his march was pure bravado, for no soonabed he recebed a sheltering cluster. er had he reached a sheltering cluster of trees that offered concealment from the curious eyes of any of his com-rades who might be watching his movements, than bending low he start-

ed on a swift run.
At last his breath failed him and he threw himself down at full length upon the scant verdure of the prairie.
And now he thought for the first time
of the penalty of his act. There were
two courses open to him: either to obtain all the pleasure that could be obtained from his unwonted liberty and then return to the post, there to spend many a day in the guard-house as a consequence of having been absent without leave; or he might attempt to most impossible project as he knew, since the reward the government offers for the return of each of her straying defenders keeps the border sheriffs on the alert. No, it would be wiser to return and face the conse-quences at the post, than to risk spending the next five years of his life in the military prison at Leavenworth. He would surrender within the specifled 12 hours, beyond which time the comparatively innocent "absent without leave" would become the dreaded

and his customary spirits, which had seets, but belong to the class of spi-been rather damped by his reflecters, ticks and the like. The ma-tions, he started to make a wide cirture mite wanders about, feeding on cuit with the mingled determination of aphides, small caterpillars, and in the spilling the blood of every living thing that should be so unfortunate as to come within the range of his gun, and of arriving at the post before night-

(Concluded Next Issue.)

WAYS OF ELIMINATING THE HAR-VEST MITES.

Where a large tract is to be freed of the pest such as lawns, country grounds, pathways, roadsides, the method recommended by the United States Department of Agriculture is to keep the grass closely cut, the weeds eliminated and useless herbage mowed as closely as feasible, so as to expose the mites to the sun. In some cases it may be practical to spray the grass and other plants, after cutting, with flowers of sulphur or a dilute spray of kerosene emulsion, in which sulphur has been mixed. mixed.

Grasses bordering on ponds frequented by cattle, wild blackberry bushes and similar plants, should be cut down and destroyed in the vicinity of houses where people are liable to be infested with the mites by passing through them. Cattle, sheep and goats have often been used successfully in keeping down the grass and other vegetable growth which may

and other vegetable growth which may harbor chiggers.

On large estates, chiggers may be effectively eliminated by the use of dust plowers, such as are used for dusting potatoes with Paris green, or by one of the large sulphur dusters used in spraying orange trees or hops for red spider. These sprayers are capable of throwing a fan-shaped discharge about eight tet wide and effect an even and thorough distribution. The cost of application, allowtion. The cost of application, allowing 50 pounds of sulphur to the acre, would be 1.00 or 1.50 an acre. One man and a team will cover in a day 30 to 40 acres so that the cost of application is not great. The duster costs from \$65 to \$80.

Not an Insect-a Spider The harvest mites are not true in-

case of one species, on the eggs of grasshoppers or locusts. One form of chigger hibernates in the soil, or other sheltered locations, and in the spring deposits her eggs, there being only one generation produced a year. The eggs are laid in the ground some only one generation produced a year. The eggs are laid in the ground, sometimes as many as 400 in one place. When the larva, which is microscopic, blood red, and shaped somewhat like a common tick, hatches, it is circular or ovoid in outline, and each of its three pairs of legs is tipped with two or three prominent claws. After the or three prominent claws. After the larva has become attached to its insect host it grows rapidly and when full fed, seeks a convenient shelter to change its shape without molting. Within a few weeks it emerges a full grown chigger or mite of different shades of red and with eight legs, instead of six as found on the la

Berberis thunbergii or Thunberg's barberry makes a very good low hedge. Its foliage colors well in au-tumn and the bright red fruit hangs on well into the winter.

Light-Weight Racing Bieyeles Again in Vogue.

"It seems like old times," remarked one of the managers of a large Chicago bleyele house, as he lit his after-lunch cigar.

"Why like old times," asked his friend.
"Is the bicycle coming back?"

"No, the bicycle has never been away—our sales have been larger and larger every year—bicycles are as much a staple nowadays as baby buggles.

"My remark in regard to old times had reference to the large numbers of racing models that are being ordered this season, indeed, we are way behind with shipments on this class of goods, and the demand keep growing.

Indeed, we are way behind with shipments on this class of goods, and the demand keepi growing.

"All over America, renewed interest in bicycle racing is being feit. Racing tracks are being built in scores of cities, and the crowds that turn out to see the events prove that the interest in this splendid, red-blooded sport is not forced, but entirely natural and spontaneous.
"An interesting development in the trade this year, as a result of the racing fever, is the general tendency to swing away from the heavy machine, loaded with a lot of superfluous equipment, back to the old style, light weight machine, with all non-essential equipment removed.

"The person interested in a new bleycle or in new equipment for the old machine will secure a real find' in the new catalog of the Mead Cycle Co. of Chicago, America's largest producers of bicycles."

Any reader of this publication can secure a copy of the book by addressing them at Dept. T 318, Chicago, Ill.

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Makes Finished Pictures

The wonder of the age. Our Camera akes and makes finished pictures in ONE MINUTE right on the spot where the picture is taken. No dark room, plates, films or costly solutions necessary. Just snap the button and in one minute the picture is finished on a POST CARD. You will be surprised at the wonderful results—pictures are just as natural and life-like as a professioned photographer could make. Not only can you have a lot of pleasure but you can make big money selling the pictures.

NO EXPERIENCE NECESSARY

SPECIAL---10-DAY OFFER

Send us \$2.75 within 10 days, and we will send you Colman's Rural World one year, and this splendid camera outfit. Just sign the coupon below and

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Enclosed is \$2.75 for which send me COLMAN'S RURAL WORLD one full year, and the camera with complete out-fit, post-paid.

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IN ONE MINUTE

Any one can get the best results with The Wonder One Minute Camera. The moment the camera arrives you are equipped to make finished pictures—every picture is a SURE SHOT. We send Complete Outfit—nothing to buy—you get everything complete.

make his way across the plains and there lose himself. But this was an al-

mail with money-order for \$2.75.

St. Louis, Mo.

*********************************** Farmers' Classified Department

70,000 PAID CIRCULATION RATE ONLY TWO CENTS A WORD

Column's Rural World has a family of over 76,000 midd in advance subscribers every week. This means that at least 356,000 farm folks are readers of these columns. Figure the cost of sending each of these readers a personal letter each week and then compare that cost with the low rate at which you can reach them ALL through the Classified Columns below. Count up the words in your advertisement, including initials and numbers which count as werds, and muitiply by two and you will quickly appreciate how low the cost is to reach these 76,000 buyers every week. No advertisement less than 10 cents accepted—and no fakes under any circumstances. Cash must accompany all orders. ADDRESS,

Colman's Rural World Advertising 718 Lucas Av., St. Louis, Mo. ·····

HELP WANTED.

MEN AND WOMEN wanted everywhere. Government jobs. \$70 month. Short hears. Summer vacation. Big chance for farmers: Write immediately for list of positions now obtainable. Branklin Institute, Dept. A. 167, Rechester, N. Y.

BUSINESS OPPORTUNITY.

FARMERS, your 20-word Adv. In the Kentuckian and 100 other papers for \$1.00. Sample copy for stamp. Superior Pub. Co., Island, Ky.

FREE FOR SIX MONTHS—My special offer to introduce my magazine "Investing for
Profit." It is worth \$10 a copy to anyone
who has been getting poorer while the rich,
richer. It demonstrates the real earning
power of money, and shows how anyone, no
matter how poor, can acquire riches. Investing for Profit is the only progressive
financial journal published. It shows how
\$100 grows to \$2,200. Write now and I'll
send it six months free. H. L. Barber, 477-22
W. Jackson Blvd., Chicago.

SEED AND NURSERY STOCK.

TROPICAL PLANTS—Write for catalog. Everglade Nursery Company, Fort Myera, Fla.

GINSENG—Seed and plants for sale.

HAY, GRAIN, ETC.

ALFALFA HAY—Colorado Irrigated. Best for all stock. Same analysis as bran. Get prices delivered. New crop now ready. Cherokee Commission Campany, Lamar, Colorado.

PONIES.

"deserter."

Having now recovered his breath Dunlap's Pony Farms, Williamsport, Ohio.

FARMS AND LANDS.

WILL EXCHANGE—Six well improved al-fairs farms, encumbered, for clear property. Tate, Howard, Kansas.

FOR SALE—3,050-acro Pumphin Creek ranch, fenced, improved, well watered, 105 acres alfalfa. With or without stock and equipment. Cheap. Address Longaere Bros., Owners, McGrew, Neb.

PATENTS SECURED or fee returned. Send sketch for free search and report. Lat-est complete patent book free. George P. Kimmel, 230 Barrister Building, Washing-ton, D. C.

BEES AND HONEY.

BEST QUALITY new clover honey, 30-lb. can, \$3.45, two or more cans, \$3.36 each. Sample 10c. Price list free. M. V. Facay, Preston, Minn.

AIRDALE—The great twentieth century dog. Collies that are bred workers. We breed the best. Send for list. W. R. Watson, Box 19, Cakland, lows.

MISCELLANEOUS.

SMALLEST BIBLE PRINTED, size post-age stamp, 16c. M. Whittemore & Co. Asheville, N. C.

POSITIVE PROOF from oldest records that John haptised by sprinkling; 65-page pambhlet, 16 cents. Research, Drawer, Batesburg, S. C.

KODAK FILMS developed free.
any size, is each. Best finish and
nent work. Send trial order. H
Studio, Ft. Worth, Tex.

HAVE YOU SENT FOR YOUR TALKING MACHINE

You Have Never Seen Such An Offer As This Before



Wonderful Talking Machine Offer

Colman's Rural World are the first publishers body can operate this Wonderful Talking to offer a Talking Machine free to its readers. This Talking Machine is one of the cleverest inventions of the present generation. We now place it within the means of every reader of Colman's Rural World to have one of these Wonderful Ball Bearing Talking Machines.

This Wonderful Talking Machine is an extremely simple, clear-toned machine, marvelously reproducing the human voice as well as instrumental and vocal music, using the ordinary flat Talking Machine records. With this wonderful machine in your home you can entertain

Machine. A child can play it equally as well as an older person.

CONSTRUCTION: The machine is extremely simple, operated by a flat crank, fitted with a ball bearing turn table, finished in aluminum, polished copper and green felt.

DIRECTIONS: Place horn in position as shown in the above illustration, use ordinary talking machine needles, squeeze end of wire needle clamp together and insert needle, place any flat record on turn table and turn crank; when all your friends with any kind of music you want.

The machine is portable. It may be taken on a vacation trip, in camp or on the canoe and is always available and ready for use. Any
machine is running evenly, place the needle gently down on the outside groove of record.

This is a ball bearing Talking Machine and if properly oiled will last for years.

Our Wonderful Talking Machine Offer

If you are a reader of Colman's Rural World, send us \$1.00 to renew your subscription for subscriptions to Colman's Rural World at \$1.00 one year and 75 cents extra, making a total of \$1.75 and we will ship you promptly, and all charges prepaid, this wonderful Talking Machine which we guarantee to reach you in good condition.

If you prefer you can get two new one-year a year, and send us the \$2.00 and we will send you this wonderful Talking Machine absolutely free—all charges prepaid. Send your order for a Talking Machine today. The demand will be enormous. Address orders and remittances to

TALKING MACHINE DEPARTMENT COLMAN'S RURAL WORLD, ST. LOUIS, MO.